

ABSTRACT

The present invention relates to membranes including an urethane including a polyester polyol, wherein the membrane has a gas transmission rate of 15.0 or less for nitrogen gas wherein the membrane has an average thickness of approximately 5 20.0 mils. Under certain embodiments, the membranes include blends of one or more polyester polyol based thermoplastic urethanes and one or more barrier materials. The membranes can be employed in a variety of applications and can be used as either monolayers or multi-layered laminates.